

+

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FIG. 1

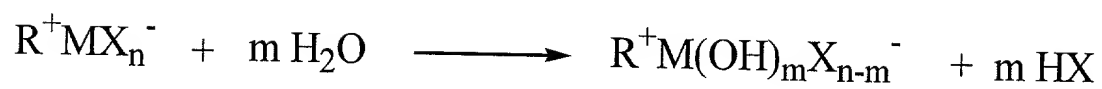
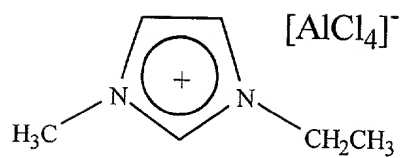
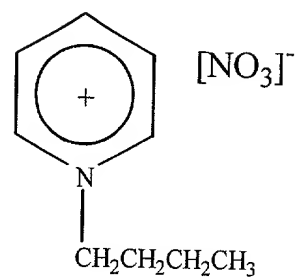
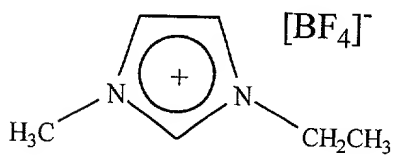
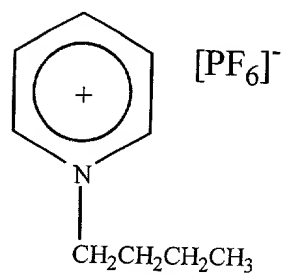


FIG. 2

1-ethyl-3-methylimidazolium
tetrachloroaluminate

1-butylpyridinium nitrate

1-ethyl-3-methylimidazolium
tetrafluoroborate1-butylpyridinium
hexafluorophosphate

+

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FIG.3

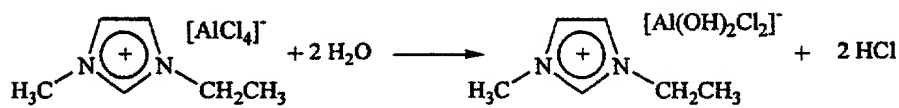
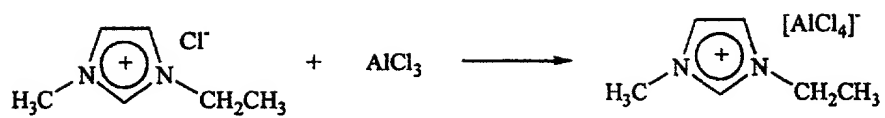
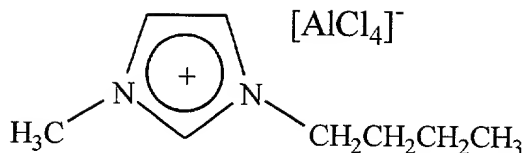


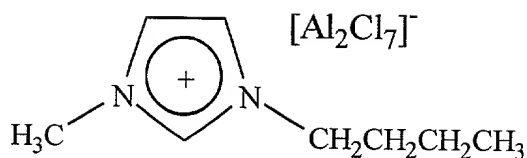
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FIG. 4



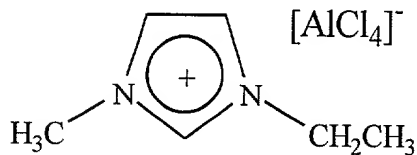
BmimIL-50

$\text{C}_8\text{H}_{15}\text{AlCl}_4\text{N}_2$
 Exact Mass: 305.98
 Mol. Wt.: 308.01
 C, 31.20; H, 4.91; Al, 8.76; Cl, 46.04; N, 9.09



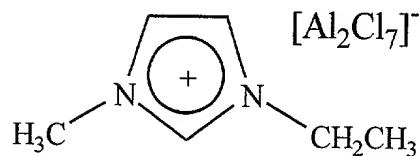
BmimIL-67

$\text{C}_8\text{H}_{15}\text{Al}_2\text{Cl}_7\text{N}_2$
 Exact Mass: 437.87
 Mol. Wt.: 441.35
 C, 21.77; H, 3.43; Al, 12.23; Cl, 56.23; N, 6.35



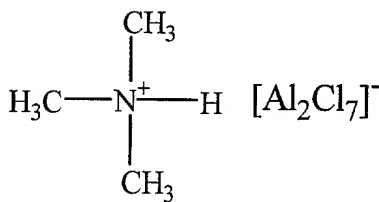
EmimIL-50

$\text{C}_6\text{H}_{11}\text{AlCl}_4\text{N}_2$
 Exact Mass: 277.95
 Mol. Wt.: 279.96
 C, 25.74; H, 3.96; Al, 9.64; Cl, 50.65; N, 10.01



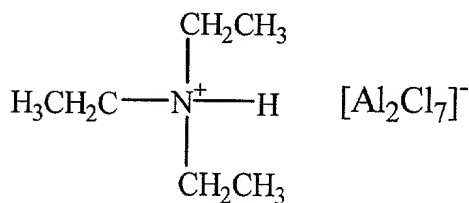
EmimIL-67

$\text{C}_6\text{H}_{11}\text{Al}_2\text{Cl}_7\text{N}_2$
 Exact Mass: 409.84
 Mol. Wt.: 413.30
 C, 17.44; H, 2.68; Al, 13.06; Cl, 60.05; N, 6.78



TMAHIL-67

$\text{C}_3\text{H}_{10}\text{Al}_2\text{Cl}_7\text{N}$
 Exact Mass: 358.83
 Mol. Wt.: 362.25
 C, 9.95; H, 2.78; Al, 14.90; Cl, 68.51; N, 3.87



TEAHIL-67

$\text{C}_6\text{H}_{16}\text{Al}_2\text{Cl}_7\text{N}$
 Exact Mass: 400.87
 Mol. Wt.: 404.33
 C, 17.82; H, 3.99; Al, 13.35; Cl, 61.38; N, 3.46

FIG. 5

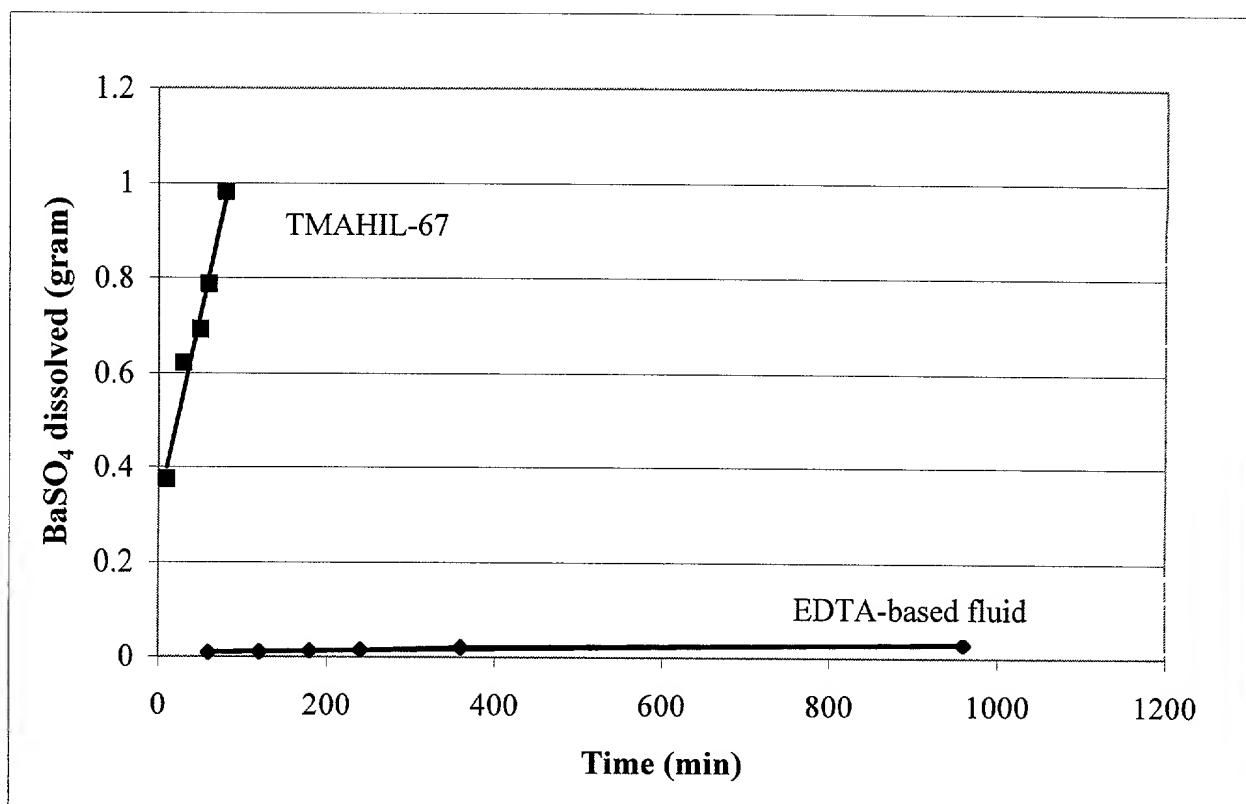


FIG. 6

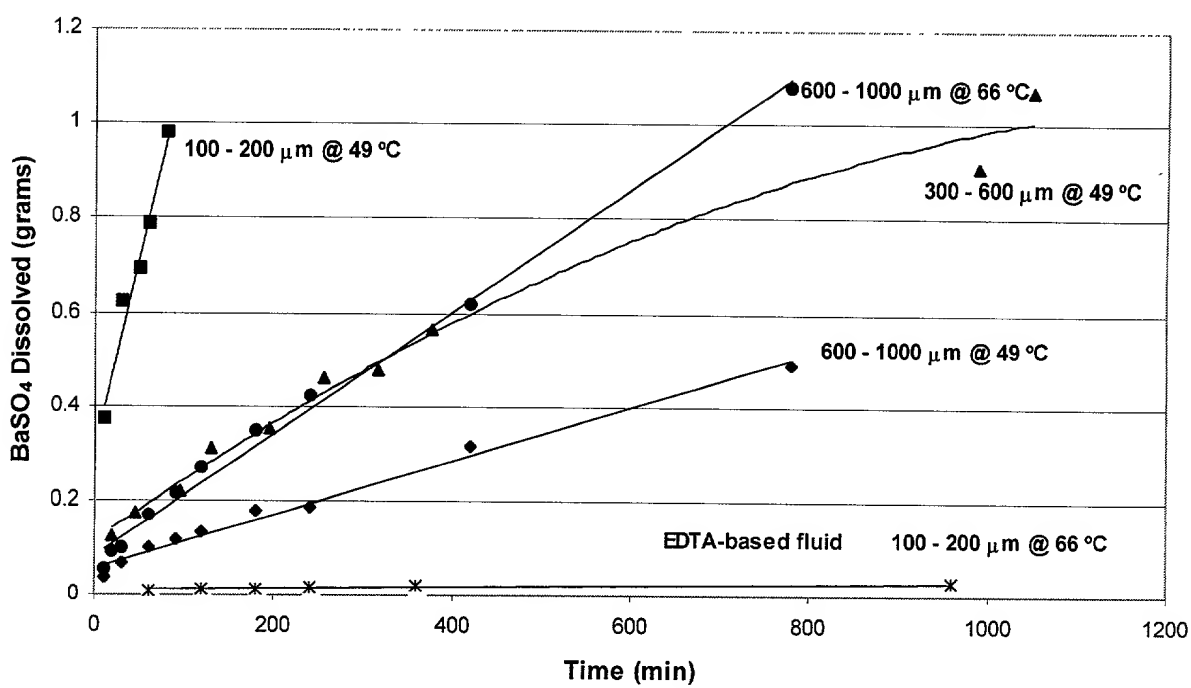


FIG. 7

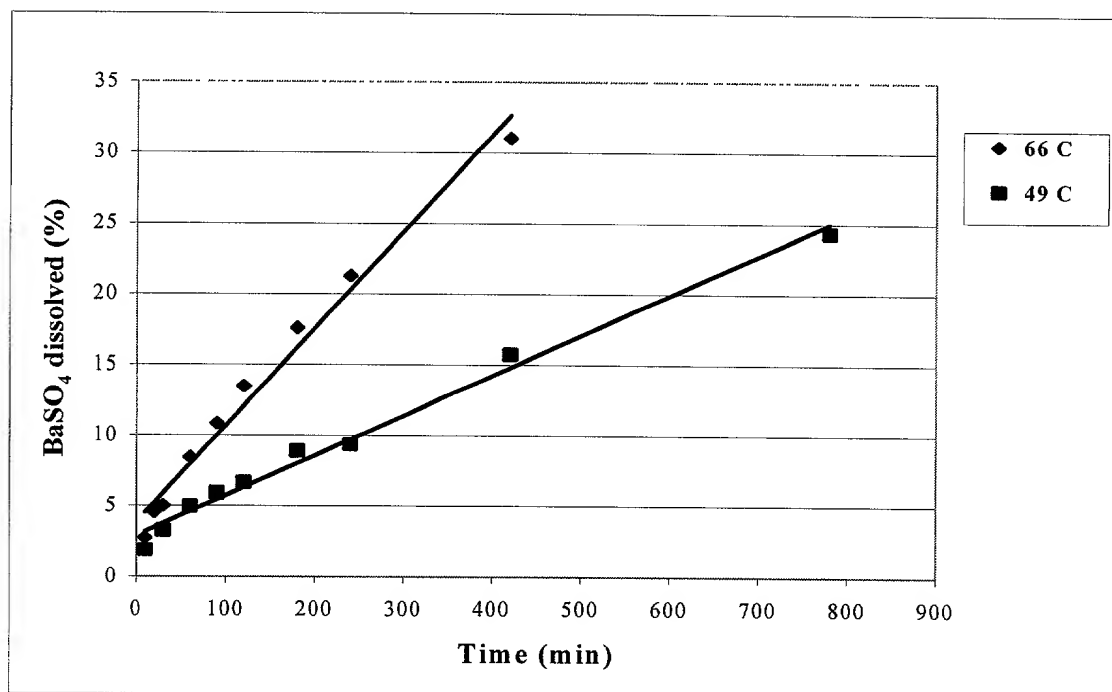


FIG. 8

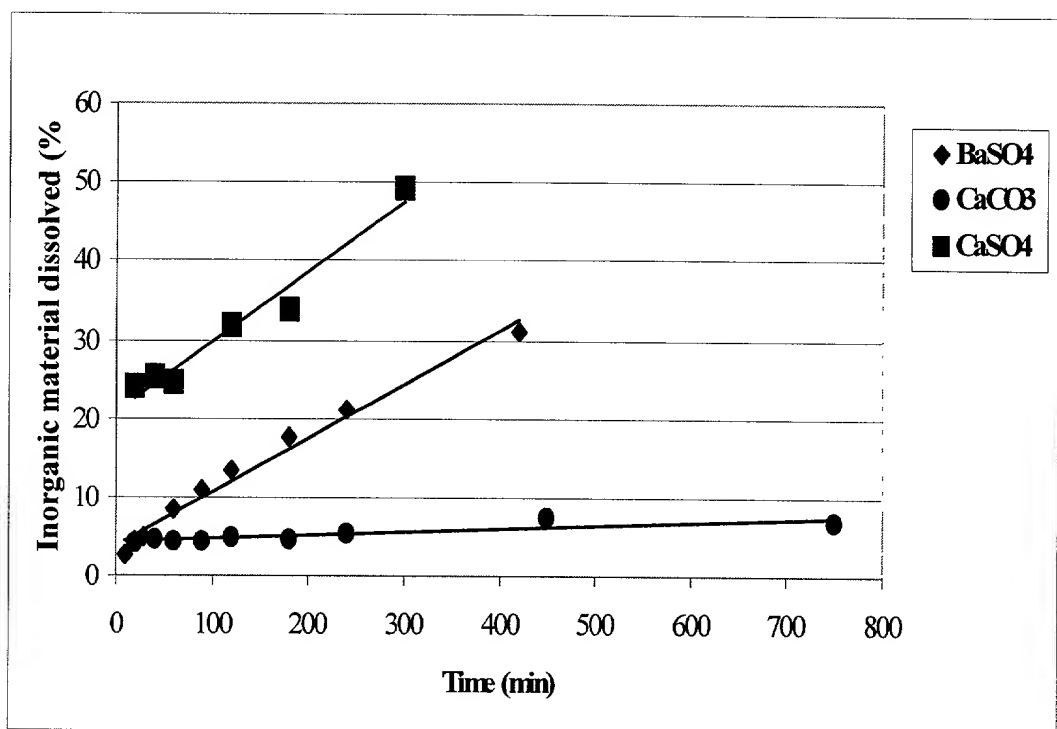


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